Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Evolution Test Study Guide**

Complete this study guide and turn in the day of the test to receive extra credit.

**VOCABULARY**:

\_\_\_\_\_\_\_\_ 1. Change of species over time

\_\_\_\_\_\_\_\_ 2. Individuals have a beneficial adaptation that allows for prodcuce of more offspring

\_\_\_\_\_\_\_\_ 3. Certain variation that allow an individual to survive better

\_\_\_\_\_\_\_\_ 4. Humans change a species by breeding for certain traits

\_\_\_\_\_\_\_\_ 5. Heritable difference that exists within a species

\_\_\_\_\_\_\_\_ 6. Individual’s ability to survive and reproduce

\_\_\_\_\_\_\_\_ 7. Movement of alleles from one population to another

\_\_\_\_\_\_\_\_ 8. Changes in allele frequency due to chance

\_\_\_\_\_\_\_\_ 9. Genetic drift that occurs after an event (natural disaster or disease) drastically reduces the population size

\_\_\_\_\_\_\_\_ 10. Genetic drift that occurs after small number of individuals colonize a new area

\_\_\_\_\_\_\_\_ 11. Allele frequency in a population stay the same from one generation to the next

\_\_\_\_\_\_\_\_ 12. Species differentiate slowly by continually over long periods of time

\_\_\_\_\_\_\_\_ 13. Evolution occurs in spurts of relatively rapid change follower by long periods of non-change

\_\_\_\_\_\_\_\_ 14.  The most recent ancestral form or species from which two different species evolved

\_\_\_\_\_\_\_\_ 15. Body parts in different species that is similar in function but not in structure

\_\_\_\_\_\_\_\_ 16. Example of an organ or bone that appears in different animals, suggesting a common ancestor

\_\_\_\_\_\_\_\_ 17. Structure that has lost much of its ancestral function (ex. appendix)

1. Homologous structure
2. Evolution
3. Vestigial structure
4. Natural Selection
5. Analogous Structure
6. Adaptation
7. Common ancestor
8. Artificial selection
9. Punctuated equilibrium
10. Variation
11. Gradualism
12. Fitness
13. Hardy-Weinberg Equilibrium
14. Gene flow
15. Founders Effect
16. Genetic Drift

**Natural Selection**

**5 Principles**

**Cladogram**

|  |  |  |  |
| --- | --- | --- | --- |
| **Organism** | **Eyelids** | **Legs** | **Venom** |
| Legless Lizard | + | \_ | \_ |
| Iguana | + | + | \_ |
| King Snake | \_ | \_ | \_ |
| Gila Monster | + | + | + |
| Shared # Traits |  |  |  |

**Speciation**

Reproductive Isolation Geographic Isolation Temporal Isolation Behavioral Isolation

Def:

Ex:

**Classification**

**Evidence of Evolution**

**Evidence Example**

**1.**

**2.**

**3.**

**4.**

**5.**

**Patterns of Evolution**

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Convergent Evolution \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

* Evolution towards different

Characteristics in closely related

Species

**Hardy- Weinberg Equilibrium**

Conditions of Equilibrium

1.

2.

3.

4.

5.

**The ability to taste PTC is due to a single dominate allele "T". You sampled 215 individuals in biology, and determined that 150 could detect the bitter taste of PTC and 65 could not. Calculate all of the potential frequencies.**

P2 + 2pq + q2  = 1

\_\_\_ \_\_\_ \_\_\_

p + q = 1

\_\_\_ \_\_\_